

**REMARKS**

The Applicants have carefully considered this application in connection with the Examiner's Action and respectfully request reconsideration of this application in view of the following remarks.

The Applicants originally submitted Claims 1-20 in the application. Pursuant to a restriction requirement, Claims 1-14 were previously canceled without prejudice or disclaimer. Claims 21 and 22 were previously added, and Claim 21 was previously amended. The Applicants do not presently amend, cancel or add any other claims. Accordingly, Claims 15-22 remain pending in the application.

**I. Rejection of Claims 15 and 18-22 under 35 U.S.C. §102**

The Examiner continues to maintain his rejection Claims 15 and 18-22 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,383,858 to Gupta *et al.* ("Gupta"). The Applicants respectfully disagree.

The Examiner continues to assert that Gupta discloses each and every element of the claimed invention either expressly or inherently as recited in the rejected claims. However, the Applicants believe that the Examiner's insistence is based on a misunderstanding of the teachings of Gupta as applied to the claim language. For example, presently, the claims recite first electrodes of a capacitor located on a first conductive layer. A high-k dielectric layer is located not only over and between the first electrodes, but that same layer is also located on the first conductive layer. Then, another electrode is located on that same high-k dielectric layer over and between the first electrodes to form second electrodes over and between the first electrodes. Such a structure is not taught by Gupta.

The Examiner relies on a plan view shown in FIGURE 2A and columns 3-4 in Gupta and states that Gupta clearly discloses an electrode layer 120, 220, comprising the metal and located on the high-K dielectric layer and over and between the first electrodes to form interconnected second electrodes over and between the first electrodes. He further states that Claim 15 does not claim that "the first and second electrodes locate in different level in a cross-sectional view." Contrary to the Examiner's assertions, Gupta fails to teach a number of the elements of Claim 15.

For example, the dielectric layer 35, which can be better seen in FIG. 4 in Gupta, is located over and on each of first and second electrodes, 110 and 120. Therefore, the second electrodes cannot be located on the dielectric since the dielectric is located on the second electrode. Additionally, no where does Gupta teach that this same dielectric layer is located on the first conductive layer on which the first electrodes are located. At best, the first conductive layer would be located on the dielectric instead of the reverse, which is required by the claim. Further, while Gupta teaches that the dielectric layer is located over and between the first electrodes, the second electrodes are not located on the dielectric layer and over and between the first electrodes. The second electrodes in Gupta that are on the same dielectric layer are between, but they are not over as required by the claim.

The Examiner seems to assert that the dielectric layers and the electrode layers recited in the claims can meander in any given three dimensional direction. However, to read the claims in such a manner is completely contrary, not only to the understanding of the claims as set forth by the specification, but is also contrary to the way in which such devices are typically made. In conventional practice, it well understood that semiconductor devices are constructed a layer at a time, and a layer is considered to be on a given level and is not meant to be on various levels within

a device. This is in keeping with the teachings of Gupta. In FIG. 4 and its accompanying discussion, Gupta clearly teaches that the electrodes are located on different levels of dielectric layers.

In short, Gupta teaches first and second electrodes located on one dielectric layer with another dielectric layer located over and between the first and second electrodes and teaches a second electrode located on a given level between first electrodes. But, Gupta does not teach first electrodes on a first conductive layer with a dielectric layer located over and between those first electrodes and on the first conductive layer with an electrode layer that is on that same dielectric layer and over and between the first electrodes to form second electrodes.

Therefore, Gupta does not disclose each and every element of the claimed invention and as such, is not an anticipating reference. Because Claims 18-22 are dependent upon Claim 15, Gupta also cannot be an anticipating reference for Claims 18-22. Accordingly, the Applicants respectfully request the Examiner to withdraw the §102 rejection with respect to these Claims.

### III. Rejection of Claims 16 and 17 under 35 U.S.C. §103

The Examiner has rejected Claim 16 under 35 U.S.C. §103(a) as being unpatentable over Gupta in view of U.S. Patent No. 6,436,787 to Shih, *et al.* ("Shih"). The Examiner has also rejected Claim 17 under 35 U.S.C. §103(a) as being unpatentable over Gupta. The Applicants wish to express their appreciation to the Examiner of his reminder to the Applicants to point out if a reference falls under the purview of 35 U.S.C. §103(c), if such is the case. In this case, Gupta does fall under the purview of 35 U.S.C. §103(c). Gupta, which is a 102(e) reference, was originally assigned to Lucent Technologies, Inc. and was subsequently assigned to Agere Systems, Inc., whose

name appears as an assignee on the reference. Moreover, at the time of the present invention, the present invention was subject to an obligation of assignment to Agere Systems, Inc. Therefore, pursuant to §103(c), Gupta is not a valid reference and any rejection based on Gupta is improper.

Accordingly, the combination of Gupta and Shih fails to support a *prima facie* case of obviousness of Claim 15 and its dependent Claims 16-22. The Applicants therefore respectfully request that the Examiner withdraw the rejection of Claims 16 and 17 under 35 U.S.C. §103(a).

#### IV. Conclusion

In view of the foregoing amendment and remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a timely Notice of Allowance for Claims 15-22.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

HITT GAINES, P.C.



Charles W. Gaines  
Registration No. 36,804

Dated: 11/24/03

P.O. Box 832570  
Richardson, Texas 75083  
(972) 480-8800